

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

COBBLESTONE WIRELESS, LLC, Plaintiff, v. T-MOBILE USA, INC., Defendant, NOKIA OF AMERICA CORPORATION, ERICSSON INC. Intervenors.	Case No. 2:22-cv-00477-JRG-RSP (Lead Case) JURY TRIAL DEMANDED
COBBLESTONE WIRELESS, LLC, Plaintiff, v. AT&T SERVICES INC.; AT&T MOBILITY LLC; AT&T CORP., Defendants, NOKIA OF AMERICA CORPORATION, ERICSSON INC. Intervenors.	Case No. 2:22-cv-00474-JRG-RSP (Member Case) JURY TRIAL DEMANDED
COBBLESTONE WIRELESS, LLC, Plaintiff, v. CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS, Defendant, NOKIA OF AMERICA CORPORATION, ERICSSON INC. Intervenors.	Case No. 2:22-cv-00478-JRG-RSP (Member Case) JURY TRIAL DEMANDED

**DEFENDANTS' AND INTERVENORS' OBJECTIONS TO MAGISTRATE
JUDGE PAYNE'S CLAIM CONSTRUCTION MEMORANDUM OPINION AND
ORDER**

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Pursuant to Rule 72 of the Federal Rules of Civil Procedure, Defendants T-Mobile USA, Inc., AT&T Services, Inc., AT&T Mobility LLC, AT&T Corp., and Cellco Partnership d/b/a Verizon Wireless and Intervenor Nokia of America Corporation and Ericsson Inc. (collectively, “Defendants”) hereby respectfully submit the following objections to Magistrate Judge Payne’s Claim Construction Order (the “Order”) (Dkt. No. 131), and request that this Court adopt Defendants’ proposed constructions. A district court judge must set aside all or part of a magistrate judge’s claim construction order if it “is clearly erroneous or contrary to law.” 28 U.S.C. § 636(b)(1)(A); Fed. R. Civ. P. 72(a). Defendants respectfully object to Judge Payne’s constructions as set forth below¹:

¹ For Defendants’ objections, Defendants also incorporate the arguments and authorities in its Responsive Claim Construction Brief (Dkt. No. 110) and at the Claim Construction Hearing.

I. “[T]he channel estimation [that includes the]/[including] path parameter information” (’347 Patent, Claims 1, 8, 15)

Cobblestone’s Proposed Construction	Defendants’ Proposed Construction	Court’s Construction
<p>No construction necessary; plain and ordinary meaning.</p> <p>Plaintiff contends the “channel estimation” referenced in the limitation is the result of the channel estimation performed in the preceding step.</p>	<p>No construction necessary; plain and ordinary meaning.</p> <p>Defendants contend that “a channel estimation” and “the channel estimation” should receive the same consistent, plain and ordinary meaning.</p>	<ul style="list-style-type: none"> • “sending the channel estimation” in Claim 1 as “sending the result of the channel estimation”; • “send the channel estimation” in Claim 8 as “send the result of the channel estimation”; • “receive a channel estimation” in Claim 15 as “receive a result of a channel estimation”; and • “according to the channel estimation” in Claims 1, 8, and 15 as “according to the result of the channel estimation.”

Defendants respectfully object to the Court’s constructions regarding the “channel estimation” limitations as they run afoul to the presumption that a term should be given the same, consistent meaning throughout the claims. Here, that presumption is not overcome by the intrinsic record. To the contrary, the intrinsic record supports a consistent application of the term in accordance with these well-settled claim construction principles.

Specifically, the ’347 Patent repeatedly refers to a “channel estimation” as an algorithm. *See, e.g.*, ’347 Patent, 8:12 (“at the receiver 150, a *channel estimation algorithm* is performed to obtain the estimates . . .”); 8:17-67 (explicitly detailing how different “channel estimation” *algorithms* can have higher or lower accuracy, including “new algorithms for estimating path parameters”); 9:1-5 (explaining that the obtained path parameter information can be fed back to

the to the transmitter 110 via the propagation path 170, 175, or 180. This feedback operation *can be performed according to the existing protocols in wireless communication systems.*”).

Further, a POSITA would understand that “the channel estimation” in the claim limitations refers to this algorithm, which the claims expressly state is different from but “*includes* the path parameter information.” ’347 Patent, cl. 1. Specifically, the “channel estimation that includes the path parameter information” needs to be sent to the transmitter so that the “predistorting” of the signal can be achieved “according to the channel estimation.” ’347 Patent, cl. 1. It is beneficial for the transmitter to receive the algorithm since a number of “channel estimation” algorithms can potentially be performed which might obtain different “*estimates*” of “the path parameter information.” ’347 Patent, 8:4-35. Thus, sending “the channel estimation,” *i.e.*, the algorithm, and its estimate(s) would help determine accuracy, if desired.

The “result” of “the channel estimation” in the Court’s construction is the path parameter information. Affirmatively construing the terms to add the limitation “the result” makes the terms inconsistent with their antecedent basis in the preceding limitation. This outcome cuts against basic cannons of claim construction.

Given that rewriting “the channel estimation” in 1[d] as “the *result* of the channel estimation” is at odds with the intrinsic record and fundamental claim construction principles, Defendants respectfully object to the Court’s construction. Consequently, the term should not be accorded any construction.

II. “[A]daption manager” (’888 Patent, Claim 20)

Cobblestone’s Proposed Construction	Defendants’ Proposed Construction	Court’s Construction
<p>No construction necessary; plain and ordinary meaning; not subject to means-plus-function treatment under 35 U.S.C. § 112(6).</p> <p>If counterfactually § 112(6) were to apply, not indefinite.</p> <p>Function: receive a handoff request from the second wireless network, the handoff request based, at least in part, on a determination by the second wireless network that the wireless device is capable of being covered by the first wireless network; cause a beam from among the one or more adaptable beams to be adapted in order to enable the wireless device to be covered by the first wireless network; transmit a confirmation to the second wireless network to indicate acceptance of the handoff request, wherein the wireless device is handed off from the second wireless network to the first wireless network.</p> <p>Structure: adaption manager 122 (FIGs. 1A-1C, 3, 5-7, 4:4-6, 5:18-20, 6:18-7:23, 8:65-10:13, 12:23-13:28, 13:62-15:45, and/or corresponding figures and equivalents).</p>	<p>Indefinite under § 112, ¶ 6.</p>	<p>Governed by 35 U.S.C. § 112¶ 6.</p> <p>Function: receive a handoff request from the second wireless network, the handoff request based, at least in part, on a determination by the second wireless network that the wireless device is capable of being covered by the first wireless network; cause a beam from among the one or more adaptable beams to be adapted in order to enable the wireless device to be covered by the first wireless network; transmit a confirmation to the second wireless network to indicate acceptance of the handoff request, wherein the wireless device is handed off from the second wireless device is handed off to the first wireless network</p> <p>Structure: adaption manager 122 (FIGS. 1A–1C, 3, 5, 5:18–20, 6:18–7:23, 8:65–10:13, 12:23–13:28, 13:62–15:45) and equivalents</p>

Defendants agree with the Court’s finding that “adaptation manager” is a means-plus-function term, but respectfully object to the ordered construction. The specification does not disclose an algorithm for performing the claimed functions leaving “adaption manager” insufficiently defined and indefinite.

First, Defendants respectfully object to the finding that the structure of the adaptation manager is anything other than a generic processor. The specification discloses that the “logic devices” of the “adaption manager” can include “one or more of a computer, a microprocessor, a microcontroller, a field programmable gate array (FPGA), an application specific integrated circuit (ASIC), a sequestered thread or a core of a multi-core/multi-threaded microprocessor or a combination thereof.” ’888 Patent, 9:23-28. Regarding this kind of language, the Federal Circuit has explained that “[f]or means-plus-function claims in which the disclosed structure is a computer, or microprocessor, programmed to carry out an algorithm, we have held that the disclosed structure is not the general-purpose computer, but rather the special purpose computer programmed to perform the disclosed algorithm.” *Rain Computing, Inc. v. Samsung Elecs. Am., Inc.*, 989 F.3d 1002, 1007 (Fed. Cir. 2021); *see also Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1352 (Fed. Cir. 2015).

The structure identified by the Court (*i.e.*, adaption manager 122 (FIGS. 1A–1C, 3, 5, 5:18–20, 6:18–7:23, 8:65–10:13, 12:23–13:28, 13:62–15:45) and equivalents) is nothing but a general purpose processor. Part of the Court’s reasoning, that “[a]t most, the ‘adaption logic’ must command or instruct the antenna array to adapt a beam, and that beam must cover the wireless device” (Order at 19), actually supports Defendants’ position. A special purpose computer programed to achieve the “adapt” function is required. Moreover, the allegedly disclosed structure, which contains “adapt logic 310” as “includ[ing] one or more of a receive feature 12, a cost feature 314, a beam feature 316 or a handoff feature” is insufficient to turn a general processor into a computer that can achieve, for example, adaptive beamforming. ’888 Patent 9:12-15.

Without an algorithm recited to achieve the claimed functions, “adaption manager” should be held indefinite. *Rain Computing*, 989 F.3d at 1008 (“Without an algorithm to achieve the

‘control access’ function, we hold the term ‘user identification module’ lacks sufficient structure and renders the claims indefinite.”); *see also Advanced Ground*, 830 F.3d at 1349.

III. “[P]redetermined network load” (’888 Patent, Claim 12)

Cobblestone’s Proposed Construction	Defendants’ Proposed Construction
No construction necessary; plain and ordinary meaning; not indefinite under 35 U.S.C. § 112.	Indefinite.

Defendants respectfully disagree that the question for this term is limited to enablement. Defendants contend that “predetermined network load” is not sufficiently disclosed in the specification and the sparse description does not inform a POSITA about its scope:

- The system could include features “configured to predetermine criteria such as what network load would be placed on [target] wireless network 120 if wireless device 130A was handed off from wireless network 110.” ’888 Patent, 6:63-66;
- A “[m]emory 330 may also be arranged to temporarily maintain information associated with determining whether to accept a handoff request (e.g., predetermined network loads).” ’888 Patent, 9:50-53; and
- “a predetermined network load placed on wireless network 120 if wireless device 130A is handed off.” ’888 Patent, 12:56-57.

Thus, Defendants respectfully object to the Court’s construction of this term.

IV. “[S]hared resource pool” (’361 Patent, Claims 10, 11, 17)

Cobblestone’s Proposed Construction	Defendants’ Proposed Construction	Court’s Construction
Plain and ordinary meaning, which is a pool containing one or more frequency spectrum resources that can be scheduled for uplink or downlink channels.	A pool containing one or more sub-optimal frequency spectrum resources that can be scheduled for uplink and downlink channels.	“a pool containing one or more frequency spectrum resources that can be scheduled for either uplink or downlink channels”

Defendants respectfully object to the Court’s construction of “shared resource pool” to the extent that it does not require that the pool contain at least one frequency spectrum resource that was assigned there because it was “sub-optimal.”

The Court explains that “in what pool the resources start or their designation as ‘sub-optimal’ does not bear on whether the processor is configured to make the required assignment.” Order at 24. Defendants disagree. The claim language requires that the assignment be made “in response to the determination that the . . . resource is . . . sub-optimal,” and thus, the designation as ‘sub-optimal’ directly bears on the processor assigning the resource to the “shared resource pool.” ’361 Patent, cl. 10. For the same reason, Defendants disagree that “how th[e] contents [of the ‘shared resource pool’] got there, don’t speak to whether the required assignment was made.” Order at 24.

Thus, Defendants object to a construction that does not account for “sub-optimal” resources, since the plain claim language precisely requires assigning “the sub-optimal resource” to the shared pool.

V. “[S]ub-optimal resource” (’361 Patent, Claims 10, 17)

Cobblestone’s Proposed Construction	Defendants’ Proposed Construction	Court’s Construction
No construction necessary; plain and ordinary meaning; not indefinite under 35 U.S.C. § 112.	Indefinite.	Plain and ordinary meaning

Defendants respectfully object to the Court’s conclusion on the definiteness of the term “sub-optimal resource.” The term is one of degree and ’361 Patent specification fails to provide any objective or well-defined boundaries for determining when a resource is “sub-optimal.” The only guidance for determining whether a resource is “sub-optimal” provided by the specification emphasizes that a POSITA could use any metric or combinations of metrics:

quality status module 113 may determine the quality status of each frequency spectrum resources associated with air interface 130 based on channel quality indicator (CQI), received interference power (RIP), *and/or any other suitable quality metric or key performance indicator*, such as RSSI, acknowledgement/negative acknowledgement (ACK/NACK) frequency, dropping rate, block error rate, bit error rate, signal-to-interference-plus-noise ratio (SINR), etc.

'361 Patent at 4:18-34.

Thus, the '361 Patent allows for a multi-faceted determination of quality status (*i.e.*, whether a resource is “sub-optimal”). Dkt. 110-1 at ¶¶97-100. As explained by Mr. Proctor, a POSITA would not consider such test to be objective. Instead, different engineers could prioritize one metric over another or prioritize a combination of metrics over other potential combinations. Dkt. 110-1 at ¶¶97-100. For example, Mr. Proctor explains that a different conclusion could be reached if a POSITA prioritizes “higher CQI” instead of “lower RIP” and vice-versa. Dkt. 110-1 at ¶¶97-100. The '361 Patent supports Mr. Proctor's opinions as it indicates that a high CQI may indicate a resource is more suitable for downlink while a low RIP may indicate that a resource is more suitable for uplink. '361 Patent at 9:9-14. Thus, a POSITA could view a resource with low CQI and low RIP as optimal for uplink. Thus, the determination of whether a resource is “sub-optimal” is subjective and does not provide the requisite certainty required by § 112. Def. Resp. Br. (Dkt. No. 110) at 25-26. This determination is entirely subjective.

The Federal Circuit rejected similar kinds of subjective standards in *Intellectual Ventures I LLC v. T-Mobile USA, Inc.* 902 F.3d 1372, 1374 (Fed. Cir. 2018). Just like in *Intellectual Ventures*, the '361 Patent explains that the claimed invention schedules resources from the shared resource pool to an uplink/downlink channel (*e.g.*, “sub-optimal” resources) to “*enhance user experience and system-level performance.*” '361 Patent 10:18-28. Moreover, the patent describes how the “suitability” of a *currently* “sub-optimal” resource fluctuates based on subjective factors

related to user behavior, traffic needs and real-time resource requests, and application. '361 Patent 3:10-32; *id.* at 4:66-3:3; *id.* at 12:41-54; *id.* at 5:49-53.

Regarding the *Ball Metal* test, depending on the nature of traffic needs, user behavior, and application that the purported invention is hypothetically applied to, it would not be possible to determine what makes a resource objectively “sub-optimal.” This is particularly true here, where the '361 Patent explains that “quality status” can be determined by “*any other suitable quality metric*” and therefore fails to even provide an agreed upon quality metric for determining “suitability.” '361 Patent at 4:26-34. The Court faults the Defendants for failing to set forth evidence that using different “suitable quality metrics” leads to different conclusions. But, as explained, Defendants’ expert sets forth various reasons why, for example, a different conclusion could be reached if a POSITA is relying on “higher CQI” instead of “lower RIP” and vice-versa. Dkt. 110-1 at ¶¶97-100. Thus, Defendants respectfully request the term be found indefinite.

Respectfully submitted: June 13, 2024

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CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the above and foregoing document has been served on June 13, 2024, on the counsel of record via electronic mail.

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